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Nota di contenuto

Industry: A sustainable, intelligent, innovative, internet-of-things
Industry -- Development of Industry 4.0 -- Sustainability development
in Industry 4.0 -- Big Data and Analytics in Industry 4.0 -- Ubiquitous
Computing for Industry 4.0 -- Cloud Computing in Industry 4.0 --
Modelling and Simulation for Industry 4.0 -- Augmented Reality and
Industry 4.0 -- Robotics and Industry 4.0 -- Additive Manufacturing:
Concept and Technologies -- Challenges within the Industry 4.0 Setup.

Sommario/riassunto

Business innovation and industrial intelligence are paving the way for a future in which smart factories, intelligent machines, networked processes and Big Data are combined to foster industrial growth. The maturity and growth of instrumentation, monitoring and automation as key technology drivers support Industry 4.0 as a viable, competent and actionable business model. This book offers a primer, helping readers understand this paradigm shift from industry 1.0 to industry 4.0. The focus is on grasping the necessary pre-conditions, development & technological aspects that conceptually describe this transformation, along with the practices, models and real-time experience needed to achieve sustainable smart manufacturing technologies. The primary goal is to address significant questions of what, how and why in this context, such as: What is Industry 4.0? What is the current status of its implementation? What are the pillars of Industry 4.0? How can Industry 4.0 be effectively implemented? How are firms exploiting the Internet of Things (IoT), Big Data and other emerging technologies to improve their production and services? How can the implementation of Industry 4.0 be accelerated? How is Industry 4.0 changing the workplace landscape? Why is this melding of the virtual and physical world needed for smart production engineering environments? Why is smart production a game-changing new form of product design and manufacturing?
